

- 1 -

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Electronic personal device**Description**

5 The present invention relates to an electronic personal device, in particular to a personal device that can be used as a personal electronic SOS-card suitable for retrieving personal information of the owner of this card that may be needed by rescue personnel in case of an accident or a medical emergency.

10

Background of the invention

To ensure that a person who has an accident or an medical emergency will be treated in a proper way so called SOS-cards in paper form are recommended to be carried around by people. Such SOS-cards usually include information
15 about its owner including name, address, phone number, closest relative or other contact person as well as his/her phone number(s), information about chronic illnesses, medication, medicine and other allergies, vaccinations, organ donation together with a personal signature, a photo and/or other special features of the owner for identification purposes. If a person who is injured by
20 an accident carries such a personal SOS-card, he/she can be treated by the rescue personnel who treats him/her first in a proper way taking account of allergies, chronic illnesses or the like, but only if the rescue personnel finds the SOS-card with the corresponding information prior to treating.

25 Therefore, it is in general possible to increase safety of people in emergency situations by such an SOS-card. However, many people do not carry around such a paper SOS-card. Further, it is often difficult for first-aid attendants to find such a paper SOS-card even if the person to be treated carries such card since there are a lot of possible places to deposit such small and flat card in
30 the pockets of the cloth.

Electronic personal devices, like handheld computers, smart cards and in particular mobile phones become more and more popular to be carried around by people. Further, the use of smart cards as keys or identification means for
35 entering certain premises are spread out widely.

- 2 -

1 Thus, it seems to be possible to integrate an SOS-card function into a personal electronic device in particular into a mobile phone that is almost always carried around by its owner.

5 However, access to information stored in the mobile phone is only possible when the mobile phone is switched on. Therefore, if the mobile phone is switched off by the owner, e.g. to save energy, SOS-card data stored therein is not available for third people because an authorization code, e.g. a personal identification number (PIN), has to be entered to complete switching on and to
10 get full access to all operating modes.

However, it is already known that a mobile phone can be used without entering a PIN code for emergency calls either by dialing an emergency number or by pushing a specific emergency call button.

15 Furthermore, a known handheld computer (e.g. Palm V™-Organizer of 3Com Corporation) includes a telephone book function for storing information as data sets having a kind of business card format. One of these data sets, for example a data set including all business card information of the owner of the
20 handheld computer can be selected by a specific menu item to be transmitted to another handheld computer via an IR interface. Even in case that the handheld computer is switched off actuating a specific button causes the computer to transmit this selected specific data set.

25 However, in case that the handheld computer is switched off using a locking function for safety and data protection purposes it is not possible to switch on the computer or to retrieve any data therefrom without entering an authorization code like a password.

30 **Summary of the invention**

Therefore, it is an object of the present invention to provide an electronic personal device that can be operated by any third people without any authorization but only to retrieve personal information about the owner of the device
35 easily.

- 3 -

- 1 This object is achieved by the electronic personal device according to claim 1. Refinements and developments of the invention are described in the depended claims.
- 5 According to the present invention an electronic personal device that comprises a central processing unit, interface means for providing access to a memory area for storing personal information data of the owner of the electronic device, a user interface having at least input means for inputting operating commands and output means for outputting information data as well as
- 10 locking means for locking the electronic device to prevent unauthorized use thereof if activated, is provided with retrieving means for operating the electronic device to retrieve the personal information data stored in the memory area even if the locking means are activated. Thus, the present invention provides an electronic SOS-card for storing a plurality of personal information
- 15 including name, address, phone numbers, contact persons, personal medical information, and personal identification information, like a photo and/or special identification features including age, sex, hair color, eye color, tattoos and any other distinctive features.
- 20 Therefore, it is possible for a third person, e.g. a first-aid attendant or ambulance person to get information about the owner of the electronic personal device by retrieving information data from the device in case that the owner is disabled to help her/himself due to an accident or a medical emergency.
- 25 A first embodiment of the present invention is characterized by memory means connected with the central processing unit for providing the memory area for storing personal information data of the owner of the electronic device.
- 30 In case that an electronic personal device according to the present invention is provided with a SIM card, it is of advantage if the memory means provided on the SIM card are used as the memory area for storing personal information data of the owner of the electronic device. In this case it is possible that the owner of the SIM card can change over from using one electronic device to
- 35 another that can be used with the same SIM card without the necessity of inputting the personal information again when using the new device with his/her SIM card.

- 4 -

1 Another development of the present invention is characterized by an air inter-
face for connecting the central processing unit with the memory area for stor-
ing personal information data of the owner of the electronic device, the mem-
ory area is provided by remote memory means located at a server of a service
5 provider, wherein the air interface comprises an RF module for use in tele-
communications network.

In this case it is possible to store some or all personal information in remote
memory means located at a server of a service provider so that these personal
10 information can be updated easily by any authorized person, e.g. by the fam-
ily doctor or any other physician authorized in case medical information has
changed. However, in both of these cases some very important medical infor-
mation data should be stored in a memory area of the device to ensure quick
access to this information without thinking about the reliability of the con-
15 nection and even in case that the coverage of a telecommunications network
is missing.

To ensure that personal information can be retrieved easily it is of advantage
if the input means comprises a specific button for activating the retrieving
20 means for obtaining the personal information data of the owner from the
memory area.

However, in case that the inventive electronic personal device is a mobile
phone having a keypad for dialing a phone number, the retrieving means
25 comprises a comparator means for comparing a character sequence input
with a retrieving code and access means for retrieving personal information
data from the memory area.

In this case a standard character sequence like S O S or 7 6 7, that is known
30 by everyone, can be used for retrieving personal information data.

According to another refinement of the present invention it is provided that
the retrieving means comprises a menu control means for selecting a menu
item for obtaining the personal information data of the owner from the mem-
35 ory area.

- 5 -

1 **Brief description of the drawings**

The invention will be explained in more detail here in after by way of example with reference to the accompanying drawings.

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Figure 1 shows a schematic simplified block diagram of an electronic personal device according to the present invention;

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Figure 2 shows a schematic simplified block diagram of another electronic personal device according to the present invention; and

Figure 3 shows a schematic simplified block diagram of a third embodiment of the present invention.

15 Mutually corresponding components are provided with the same reference symbols in the various figures of the drawings.

Detailed description of the preferred embodiments

20 According to Figure 1 an electronic personal device like a mobile phone or a handheld computer, comprises a central processing unit CPU 10 being connected to a memory area 11 via an interface 12. The interface 12 can be any suitable interface used for data transfer between the central processing unit 10 and the memory area 11.

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For inputting any kind of information, in particular information data and operating data a user interface 13 comprises input means that can be formed by a keypad 14 as usually provided for mobile phones, a turn-push-button a jog-dial, a touchscreen or the like. Further, the input means can be also provided with a voice command input. For outputting information data the user interface 13 comprises output means formed by a display 15. In addition a loudspeaker can be used for announcing information. Both the input and the output means 14, 15 are connected via an interface circuit 16 to the central processing unit 10.

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To prevent unauthorized use of the mobile device locking means 17 are provided so as to allow or disallow entering operating commands into the central

- 6 -

1 processing unit 10 for operating the electronic device. The locking means 17
can be formed by a security routine that prompts the user for a password af-
ter switching on and which enables operating the device only if the password
5 entered by the user is correct. For mobile phones the personal identity num-
ber PIN related with the SIM card is used as such password. For handheld
computers usually the password can be selected by the user during operating
a corresponding security function.

Further, to enable retrieving specific personal information data stored in the
10 memory area 11 in case of an accident or a medical emergency retrieving
means 18 are provided in addition to the locking means so as to allow a very
limited access to the memory 11 via the central processing unit 10 even if
general operating of the electronic device is disallowed by the locking means
17. E.g. the retrieving means 18 comprises a comparator means 18' for com-
15 paring a character sequence input via the keypad 14 with a retrieving code
and access means 18" for retrieving personal information data of the owner
from the memory area.

Although the interface circuit 16, the locking means 17 and the retrieving
20 means 18 are shown as separate circuit elements these elements can be pro-
vided together with the central processing unit 10 as elements of a common
microprocessor. Further, the locking means 17 as well as the retrieving
means 18 can be implemented as software programs or parts thereof.

25 As indicated in Figure 1 the memory area is provided by a memory means 11
that is a part of the electronic device.

According to the present invention the electronic device described in connec-
tion with Figure 1 can be used as electronic SOS-card having personal infor-
30 mation data of the owner of the electronic device stored within the memory
means 11, in particular within a certain area thereof that is indicated as
storing personal SOS-data of the owner.

This personal information can contain but is not limited to the owner's name,
35 address, phone number(s), closest relative or other contact persons together
with his/her phone number(s), as well as specific medical information as
about chronic illnesses, medication, medicine and other allergies as well as

- 7 -

1 vaccinations. Further, in case that the electronic device provides the possibility to confirm the correctness of a stored information by means of an electronic signature that is legally accepted it is also possible to include information about organ donation.

5 Further, for identification purposes a photo and/or information about age, sex, hair color, eye color, tattoos and any other distinctive features other special features of the device owner can be stored. Thus it is easy for rescue personnel to identify a person as the owner of the device.

10 The format of the presentation should be clear regardless of the country or a language area of the device.

15 The electronic personal device according to the invention increases safety of people in emergency situations. In particular, if the owner of the electronic device is injured by an accident, the people who has to provide medical treatment as first aid can inform him/herself about necessary medical data and about personal information data for informing relatives of the victim of the accident.

20 In case that a child is lost a person who found it, for example a police officer can easily retrieve the name and the address of the child including the phone number of his/her parents from a mobile phone that is carried around by the child.

25 For retrieving the personal SOS-card data, a specific button can be provided for activating the retrieving means 18. This specific button can be an additional button, but it can be also a selected key 14' of a keypad 14 that is marked accordingly to be easily identified as SOS -card data retrieving button or key.

30 Furthermore, for activating the operation for retrieving SOS data it is possible to use a specific retrieving code that can be input by the keypad 14 without any additional modifications of the keypad 14 as such. For example, in case that the electronic device is a mobile phone it can be provided that the
35 specific retrieving code is 7 6 7 that is correlated with S O S.

- 8 -

1 Furthermore, it is also possible that the SOS-card data retrieving function is implemented as a menu item that can be easily found by scrolling through the menu items.

5 In case of an electronic device that can be operated only after inputting a password or PIN it is necessary to provide a menu access for selecting the SOS-card data retrieving function. Therefore, it is possible to present all menu items to the user during scrolling even if a PIN or the like has not been entered but allow only the SOS-card data retrieving function. Another possi-
10 bility is that only the available SOS-card data retrieving function is displayed to the user when she/he requests access to the menu.

According to the embodiment of Figure 2 that shows an electronic device that is provided with a specific slot for inserting a user or subscriber identification
15 module a memory means 11' provided on the user or subscriber identification module or SIM card can be used as memory area for storing personal information data of the owner of the device. In this case the memory means 11' is connectable to the central processing unit 10 via the SIM card processor 20 and a corresponding interface 12' including SIM contacts (not shown). Stor-
20 ing the personal information or SOS-card data in the SIM card memory makes it possible that the owner of a SIM card does not need to input her/his personal SOS-card data as mentioned above every time he changes the mobile device without changing her/his SIM card.

25 According to another embodiment it is also possible that the memory area for storing personal information data is provided by remote memory means 11'' located at a server 30 of a service provider. In this case interface means for connecting the central processing unit 10 of the electronic device, in particular of a mobile phone includes an RF module 31 for use in a telecommunica-
30 tions network, a base station 32 of such a network, suitable connecting means 33 for connecting a base station 32 of a telecommunications network to the server 30 and a processing unit 34 of the server 30. The connecting means 33 for connecting the base stations 32 to a server 30 that is indicated in Figure 3 by a simple line includes all necessary communication means like
35 Internet, public switched telephone network and so on.

- 9 -

1 In case that personal SOS-card data are remotely stored in a memory means
11" of a server 30 it is possible to store all personal SOS-card data in the re-
mote memory means 11". However, it is preferred to store some of the SOS-
card data in the electronic device either in a SIM card memory 11' or in a
5 device memory 11 as discussed above whereas other or even all SOS-card
data are remotely stored in the memory means 11" of the server 30. In this
case personal SOS-card data stored in memory means of the device are ur-
gent information like blood type, allergy information and so on that is needed
by an ambulance person for properly treating the victim of an accident or a
10 medical emergency. Therefore, a mobile phone can be used in this way as an
electronic SOS-card without worrying about the reliability of the RF connec-
tion or the coverage area of the telecommunications network.

Personal information data stored remotely can be automatically updated
15 without access to the electronic device as such. Therefore, information about
medication and vaccinations which may change after visiting a physician can
be updated by the physician in case that she/he is authorized by the user ac-
cordingly. This makes it sure that the personal SOS-card information stored
is always up-to-date.

20 Thus, with the present invention electronic SOS-card information is more
readily maintainable, i.e. changes to the information are easier to make than
in a paper SOS-card. Further, awareness of the electronic SOS-card, i.e. of
the electronic device, for example a mobile phone or a handheld computer, is
25 better than the paper SOS-card because of its huge and popularity, in par-
ticular of the mobile phones. Such mobile phone is easier to find than the
persons wallet or a paper SOS-card. Since more and more people own mobile
phones but do not have a paper SOS-card the invention increases the safety
of persons in the already mentioned situations because rescue or ambulance
30 people can access and find contact information from the electronic device ac-
cording to the present invention.